

What is claimed is:

[Claim 1] 1. A method for updating object page size during reorganization of a table space in a database comprising the steps of:

- (a) allocating a shadow data set for at least one object belonging to a first data set from said table space;
- (b) writing to a shadow control block corresponding to each of said allocated shadow data sets, a new page size value; said new page size value corresponding to said at least one object;
- (c) loading rows from said first data set of said table space into said allocated shadow data set; for each row loaded, reading each object corresponding to said loaded row from said table space and writing said read object to said allocated shadow data set; and
- (d) updating at least: said first data set of said table space with data from said shadow data set; a system catalog for said database with said new page size value; and at least one database control block with said new page size value; said at least one database control block corresponding to said first data set.

[Claim 2] 2. A method for updating object page size during reorganizing a table space in a database, as per claim 1, wherein said method further comprising the steps of:

- prior to said shadow data set allocation, blocking write access to said first data set from said table space; and
- subsequent to said updating said table space, said database system catalog, and said at least one database control block, allowing write operations related to said first data set to proceed.

[Claim 3] 3. A method for updating object page size during reorganizing a table space in a database, as per claim 1, wherein said method is implemented across networks.

[Claim 4] 4. A method for updating object page size during reorganizing a table space in a database, as per claim 3, wherein said across network element is any of the following: local area network (LAN), wide area network (WAN), or the Internet.

[Claim 5] 5. A method for updating object page size during reorganizing a table space in a database, as per claim 1, wherein said loading is further comprised of:

(a) concurrently loading rows corresponding to said at least one object from said table space into said shadow data set and extracting index keys for each loaded row; said shadow data set allocated for each of said at least one object and associated indices, and

(i) for each of said loaded rows, identifying columns representing data corresponding to said at least one object; and

(ii) for each column representing data corresponding to said at least one object, reading data from said table space; said data read using row information from a currently loaded row; and writing said data corresponding to said at least one object to said shadow data set.

[Claim 6] 6. A method for updating object page size during reorganizing a table space in a database, as per claim 5, wherein said method further comprising the steps of:

prior to said concurrent loading of rows and extracting of index keys, unloading rows from said table space; and

sorting said unloaded rows; said sorted rows subsequently loaded into said shadow data set in said loading step.

[Claim 7] 7. A method for updating object page size during reorganizing a table space in a database, as per claim 5, wherein said method is implemented across network elements.

[Claim 8] 8. A method for updating object page size during reorganizing a table space in a database, as per claim 7, wherein said across network elements is any of the following: local area network (LAN), wide area network (WAN), or the Internet.

[Claim 9] 9. An article of manufacture comprising a computer usable medium having computer readable program code embodied therein which implements a method for updating object page size during reorganization of a table space in a database, said medium comprising modules implementing:

- (a) allocating a shadow data set for at least one object belonging to a first data set from said table space;
- (b) writing to a shadow control block corresponding to each of said allocated shadow data sets, a new page size value; said new page size value corresponding to said at least one object;
- (c) loading rows from said first data set of said table space into said allocated shadow data set; for each row loaded, reading each object corresponding to said loaded row from said table space and writing said read object to said allocated shadow data set; and
- (d) updating at least: said first data set of said table space with data from said shadow data set; a system catalog for said database with said new page size value; and at least one database control block with said new page size value; said at least one database control block corresponding to said first data set.

[Claim 10] 10. An article of manufacture comprising a computer usable medium having computer readable program code embodied therein which implements a method for updating object page size during reorganization of a table space in a database, as per claim 9, wherein:

 prior to said shadow data set allocation, blocking write access to said first data set from said table space; and

 subsequent to said updating said table space, said database system catalog, and said at least one database control block, allowing write operations related to said first data set to proceed.

[Claim 11] 11. An article of manufacture comprising a computer usable medium having computer readable program code embodied therein which implements a method for updating object page size during reorganization of a table space in a database, as per claim 9, wherein said loading is further comprised of:

(a) concurrently loading rows corresponding to said at least one object from said table space into said shadow data set and extracting index keys for each loaded row; said shadow data set allocated for each of said at least one object and associated indices, and

(i) for each of said loaded rows, identifying columns representing data corresponding to said at least one object; and

(ii) for each column representing data corresponding to said at least one object, reading data from said table space; said data read using row information from a currently loaded row; and writing said data corresponding to said at least one object to said shadow data set.

[Claim 12] 12. An article of manufacture comprising a computer usable medium having computer readable program code embodied therein which implements a method for updating object page size during reorganization of a table space in a database, as per claim . A method for updating object page size during reorganizing a table space in a database, as per claim 11, wherein said method further comprising the steps of:

prior to said concurrent loading of rows and extracting of index keys, unloading rows from said table space; and
sorting said unloaded rows; said sorted rows subsequently loaded into said shadow data set in said loading step.